



PREVENTION OPPORTUNITIES UNDER THE BIG SKY

Unintentional Injury Deaths in Montana Children: Most are Preventable

Every year unintentional injuries take the lives of many children. These deaths are particularly tragic because many of them could have been prevented. Information on the circumstances surrounding the deaths can provide valuable information on how future deaths could be averted. To identify these prevention opportunities, Fetal, Infant and Child Mortality Review (FICMR) teams conduct comprehensive reviews of the majority of child deaths in Montana. The FICMR focus is to improve the health and safety of Montana's children and avert future deaths by identifying modifiable risk factors and prevention strategies. Unintentional injuries are the leading cause of death among children 1 to 18 both in Montana and nationally. In addition, the rate of unintentional injury deaths to Montana children in 2000-2004 did not decrease from the rate in the preceding five years, suggesting that much more prevention is needed. This issue of *Montana Public Health* focuses on two of the leading causes of unintentional injury deaths in Montana children: drowning and motor vehicle crashes.

Fetal, Infant and Child Mortality Reviews

The Montana Fetal, Infant and Child Mortality Review (FICMR) Program was established by the state legislature in 1997. In 2003-2004, death reviews were conducted in 53 of Montana's 56 counties and on all seven Indian Reservations by 30 local FICMR teams. Team members include coroners, law enforcement officials, physicians, public health nurses, social workers, mental health professionals, school officials, tribal representatives and county attorneys. The teams meet as needed to review records and information pertaining to each death in strict confidence. In cases where there is enough information to do so, the teams determine whether a death was preventable and identify the primary risk factors involved in the death. A child's death is considered to be preventable if an individual or the community could reasonably have done something that would have changed the circumstances that led to the child's death.

Drowning

Drowning is the most common cause of unintentional injury death among children 1 to 4 years of age, and is one of the most frequent causes of unintentional injury deaths for children of other age groups. In 2003-2004, ten drowning fatalities occurred in Montana to children 1 to 18. Four of the deaths were to toddlers, two to children 5 to 9 and four to children 15 to 18. Seven deaths occurred in lakes, ponds or rivers, two in drainage/irrigation ditches and one in an above-ground pool. Eight of the ten deaths had enough information for FICMR teams to review them for preventability; seven were determined to be preventable.

The National Maternal and Child Health (MCH) Center for Child Death Review reports that children who live in

rural areas are at a higher risk of drowning, and most drownings occur when a supervising adult is distracted.¹ Although Montana does not yet conduct statewide surveillance of injuries that do not result in death, national sources suggest that for each child 14 years and younger who drowns, five others have a non-fatal drowning experience. Such events can result in hospitalization and even long-term disabilities.²

Table: Major risk factors in child drowning deaths¹

- lapses in or lack of adult supervision
- drug or alcohol use by supervising adults
- unlocked gates and inadequate fencing around pools and ponds
- easy, unsupervised access to open bodies of water
- whether or not a child was able to swim
- whether a personal flotation device was appropriate and used

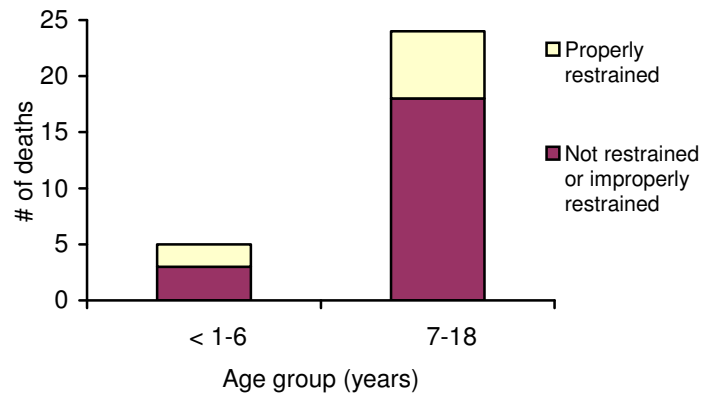
Motor Vehicle Crashes

Motor vehicle fatalities account for the largest portion of unintentional injury deaths among infants and children 5 years of age and older in Montana, and are the second most common cause of unintentional injury deaths for children 1 to 4. Sixty-five infant and child deaths in Montana in 2003-2004 were due to motor-vehicle-related events. Misuse or lack of use of safety seats and seat belts is a major risk factor for motor vehicle deaths. Three of the five Montana infants and children under the age of 7 killed in motor vehicle crashes in 2003-2004 were not in infant seats or properly restrained. The National Highway Traffic Safety Administration reported that child safety seats reduce the risk of death in passenger cars by 71% for infants and by 54% for toddlers 1 to 4. In light trucks, safety seats reduce the risk by 58% for infants and 59% for toddlers.³

Adolescents have an even higher incidence of motor vehicle fatalities than do younger children and often do not use the safety measures available to them. A seatbelt was present but not used in 18 of the 24 cases (75%) of motor vehicle crash deaths in 7 to 18 year old Montanans in 2003-2004. Fourteen percent of Montana students in grades 9 to 12 who responded to the 2005 Youth Risk Behavior Survey (YRBS) reported rarely or never wearing a seatbelt.⁴

Alcohol is another factor that contributes to motor vehicle-related deaths, particularly in Montana. Twelve of the motor vehicle fatalities among Montana children in 2003-2004 were alcohol-related. The 2005 YRBS results indicate that 34% of Montana high school students rode in a vehicle at least once during the preceding month with someone who had been drinking.⁴

Figure: Number of child deaths in motor vehicle crashes and use of safety restraints, Montana, 2003-2004



Recommendations: Steps to Prevent Fetal, Infant and Child Deaths due to Unintentional Injuries

- Advise parents to talk with caregivers about safety measures they practice at home or care facilities and in motor vehicles.

Drowning

- Counsel parents and other caregivers on the risks of drowning and the need for children to learn about water safety.⁵
- Work with school districts to encourage inclusion of water safety issues in school curricula.
- Educate parents on the importance of constant supervision of children near bodies of water.
- Counsel adolescents about the dangers of alcohol and other drug consumption during aquatic recreation activities.⁵

Motor Vehicle Safety

- Encourage parents to install and use infant safety seats correctly. An AAP guide to car seats is available at: AAP Car Safety Seats Guide. <http://www.aap.org/family/carseatguide.htm>
- Advise parents that the National Highway Traffic Safety Administration recommends that booster seats be used for children weighing >40 lbs. and up to 8 years of age or 4'9" tall.
- Inform parents that children 12 and under, including infants, should never sit in front of an airbag. Back seats are safest.⁶
- Counsel adolescents about the dangers of driving and using alcohol or other drugs, and of riding with drivers who have been drinking or using drugs.

For more information about Montana's FICMR Program, contact Julie Chaffee, Child Health Consultant and FICMR Coordinator at (406) 444-3394 or email at jchaffee@mt.gov. Subsequent issues of *Montana Public Health* will include more information from the FICMR program.

References:

1. <http://www.childdeathreview.org/causesD.htm#Drowning%20Resources>
2. <http://www.cdc.gov/ncipc/factsheets/drown.htm>
3. <http://www-nrd.nhtsa.dot.gov/pdf/nrd-30/NCSA/TSF2005/ChildrenTSF05.pdf>
4. <http://apps.nccd.cdc.gov/yrbss/>
5. American Academy of Pediatrics Policy Statement. "Prevention of Drowning in Infants, Children and Adolescents." Peds 2003; 112:2.
6. <http://www.cdc.gov/ncipc/factsheets/childpas.htm>



1400 Broadway
Helena, MT 59620-2951

Joan Miles, MS, JD, Director, DPHHS
Steven Helgersen, MD, MPH, State Med. Officer
Jane Smilie, MPH, Administrator, PHSD